

REMARKS

Claims 1-25 are pending in this application. Claims 14-25 have been withdrawn from consideration as being directed to a non-elected invention. Claims 1-13 were considered in this Office Action. Applicants are adding herewith new Claims 26 and 27. Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and the following remarks.

The Office Action

Claims 1-13 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Claims 1-13 were rejected under 35 U.S.C. § 102(b) as being anticipated by Brodnyan et al. (U.S. Patent No. 4,356,229). Claims 1-13 were also rejected under 35 U.S.C. § 103(a) as being obvious and unpatentable over Bjorkquist (U.S. Patent No. 6,127,593) in view of Brodnyan et al. Claim 1 was provisionally rejected under the judicially created doctrine of double patenting of the obviousness-type in view of Claim 19 of copending application Serial No. 09/815,251. Claim 12 was also provisionally rejected under the judicially created doctrine of double patenting of the obviousness-type over Claim 19 of copending application Serial No. 09/815,251 in view of Brodnyan. Applicants are amending herewith Claims 1 and 12. Support for these amendments is found throughout the application. Applicants respectfully traverse the foregoing rejections.

Rejection Under 35 U.S.C. § 112

Claims 1-13 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. The rejection states that all of the claims contain the term "triggerable cationic

polymer” and that the term “triggerable” does not describe what makes a polymer “triggerable” which renders the claim indefinite. The rejection further states that the term “triggerable” is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably appraised of the scope of the invention. Applicants respectfully disagree.

First, the term “triggerable” is defined by the specification. At page 5, line 31 – page 6, line 7, the present specification states as follows:

The ion specific cationic polymers and polymer formulations of the present invention have a “trigger property,” such that the polymers are insoluble in a wetting composition comprising an insolubilizing agent of a particular type and concentration, such as a divalent metal salt capable of forming complex anion in solution at concentrations above about 0.5%, but are soluble when diluted with water including other ions, such as divalent salt solutions as found in hard water with up to 200 ppm (parts per million) calcium and magnesium ions.

Thus, from the foregoing, a person skilled in the art would readily understand that a “triggerable” cationic polymer would be a polymer having a net cationic charge and being insoluble in a wetting composition comprising an insolubilizing agent, but is soluble in water when diluted with water, including hard water with up to 200 ppm (parts per million) calcium and magnesium ions. The specification also discloses how to make and use several different “triggerable” cationic polymers. Accordingly, Applicants submit that the term “triggerable” is not indefinite when construed in accordance with the teaching of the specification.

Nevertheless, in order to promote prosecution of this application, Applicants are currently amending Claim 1 to remove the term “triggerable composition.” Claim 12 does not contain the term “triggerable composition.” In view of this amendment, applicants

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submit that the rejection is now moot. Accordingly, applicants submit that Claims 1-13 are not indefinite and that the rejection under 35 U.S.C. § 112, second paragraph, should be withdrawn.

Rejection Under 35 U.S.C. § 102

Claims 1-13 were rejected under 35 U.S.C. § 102(b) as being completely anticipated and unpatentable in view of the patent to Brodnyan et al. The rejection states that Brodnyan et al. teaches a nonwoven product comprising a binder composition that is hard or soft. The rejection further states that Brodnyan et al. discloses that it was known to add components, such as butyl acrylate, 2-ethylhexyl acrylate, acrylic acid, insolubilizing agents and a salt to nonwoven fabrics. The rejection concludes that the composition of Brodnyan et al. must be equivalent to the presently claimed composition. Applicants respectfully disagree.

Brodnyan et al. discloses a nonwoven fabric including a binder composition that is water insoluble to provide wet strength. The binder is made as an emulsion and is a copolymer of 1-8% by weight of a carboxylic acid, 50-75% by weight of a C₄ to C₈ alkyl acrylate or mix, and 20-49% by weight of MMA, Styrene, or α -methyl styrene. The copolymer can be applied as a free acid or as a salt. If applied as a salt then the polymer will be anionic. Any amine functionality would be as a counter ion and not part of the polymer backbone. Thus, the polymer in Brodnyan et al. will either be anionic or, at best, neutral in charge. Accordingly, Brodnyan et al. does not disclose a cationic copolymer.

While Brodnyan et al. discloses individually, *inter alia*, the components n-butyl acrylate, 2-ethylhexyl acrylate, and acrylic acid, Brodnyan et al. does not disclose combining these monomers to form a copolymer. Moreover, Brodnyan et al. does not disclose an ion-sensitive polymer or a triggerable polymer. Importantly, Brodnyan et al. does not disclose a cationic copolymer of any type, and does not disclose a polymer that is

insoluble in a wetting solution while the wet wipe including the polymer is dispersible in tap water. Since Brodnyan et al. does not disclose the foregoing elements of the claims, applicants submit that Brodnyan et al. cannot anticipate the present claims. Therefore, applicants respectfully request that the rejection of Claims 1-13 under 35 U.S.C. § 102(b) as being completely anticipated and unpatentable in view of the patent to Brodnyan et al. be withdrawn.

Rejection Under 35 U.S.C. § 103(a)

Claims 1-13 were also rejected under 35 U.S.C. § 103(a) as being obvious and unpatentable over the patent to Bjorkquist et al. in view of the patent to Brodnyan et al. The rejection states that Bjorkquist et al. discloses paper products with wet strength comprising a cationic binder and a salt. The rejection states that Bjorkquist et al. discloses using the same components as the present invention. The rejection concludes that it would be obvious to use the polymers disclosed in Brodnyan et al. as the binder in Bjorkquist et al. Applicants respectfully disagree.

Neither Bjorkquist et al. nor Brodnyan et al. disclose a cationic polymer that is capable of forming complex anions with the divalent metal salt in the wetting solution. The disclosure of Brodnyan et al. is discussed above and is incorporated herein by reference.

Contrary to the contention of the patent examiner, Bjorkquist et al. does not disclose polymers using the same cations as the present invention. The polymers disclosed in Bjorkquist et al. are either “polyvinyl alcohol co-acetals” or homo and copolymers derived from acrylamide monomers. Bjorkquist et al. does not teach the use of cationic monomers in the synthesis of the above polymers. While Bjorkquist et al. does mention that the tertiary

amines used in the polymers may become positively charged, he does not teach the specific use of polymers that have a permanent cationic charge; *i.e.*, have cationic monomeric units that give the polymer a cationic charge. Furthermore, since Bjorkquist et al. relates to ion sensitive polymers and Brodnyan et al. relates only to a water insoluble polymer, there would be no motivation to use the polymers disclosed by Brodnyan et al. in the binder of Bjorkquist et al. More importantly, no combination of Bjorkquist et al. and Brodnyan et al. would produce a permanently charged cationic polymer that has the trigger property presently claimed.

Applicants respectfully submit that the rejection of Claims 1-13 are not obvious over the patent to Bjorkquist et al. in view of the patent to Brodnyan et al. Accordingly, applicants request withdrawal of the present rejection.

Double Patenting

Claim 1 was provisionally rejected under the judicially created doctrine of double patenting of the obviousness-type in view of Claim 19 of copending application Serial No. 09/815,251. Claim 12 was also provisionally rejected under the judicially created doctrine of double patenting of the obviousness-type over Claim 19 of copending application Serial No. 09/815,251 in view of Brodnyan. Since this is a provisional rejection and application Serial No. 09/815,251 has not issued as a patent, it is submitted that no response is required. It is further submitted that such rejection cannot be maintained if the claims are otherwise allowable.

New Claims

Applicants are adding herewith new Claims 26 and 27. Claim 26 provides that the binder comprises a cationic polymer having water solubility properties that vary depending on the type and amount of ions present in water, and that the cationic polymer is insoluble in a wetting solution containing at least about 0.5 weight percent of a divalent metal salt, but that the wet wipe is dispersible in tap water. Claim 27 is similar to Claim 26, except it more precisely defines the composition of the cationic polymer. Applicants submit that Claims 26 and 27 meet the requirements of 35 U.S.C. § 112 and are patentable for the same reasons as Claims 1 and 12.

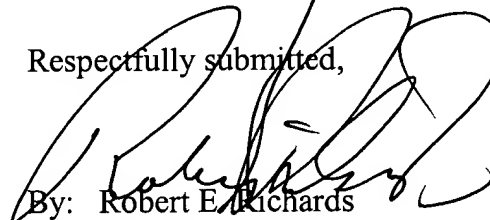
Applicants are also amending the specification herewith to state that the proper compound is acryloxyethyldimethylbenzylammonium chloride, not acryloxyethyltrimethylbenzylammonium chloride. Applicant submits that this typographical error would be obvious to those skilled in the art since it would require a physically impossible number of bonds. Thus, applicants submit that this amendment does not introduce new matter.

Conclusion

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and remarks. Such action is courteously solicited.

Applicants further request that the Examiner call the undersigned counsel if allowance of the claims can be facilitated by examiner's amendment, telephone interview or otherwise.

Respectfully submitted,


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KC# 16,529E